

**ELCA***Celebrating RUBY - (40th) Anniversary Year of Excellence***LABORATORIES**

AN ISO/IEC 17025 ACCREDITED MATERIAL TESTING LAB

UNIT - II, W 361, TTC INDUSTRIAL AREA, MIDC, RABALE, NAVI MUMBAI - 400 701, INDIA.

PH. : 91 (22) 2769 34 83 TELEFAX : 91 (22) 2769 3492

E-MAIL : rabale@elcalabs.com WEB : www.elcalabs.com

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CHEM.T/296 & MECH.T/297
ELEC.T/2293

TEST REPORT

Customer: Akshar Brass Industries Plot No: 4027, GIDC, Phase-III, Dared, Jamnagar – 361004. Gujarat, India.	ELCA ID: E-389 to E-401 Dated: 25/02/2015
	Received via Customer Document: ABI/415/14-15 DT: -25/01/2015

Sample Description:

Brass Cable Glands: Double Compression Armoured - CW Cable Gland Sizes

ELCA ID No.	Cable Gland Size	Identification Mark of Sample
E-389	CW 20S	CABTEK BS6121 PT-1
E-390	CW 20L	CABTEK BS6121 PT-1
E-391	CW 25L	CABTEK BS6121 PT-1
E-392	CW 32L	CABTEK BS6121 PT-1
E-393	CW 40L	CABTEK BS6121 PT-1
E-394	CW 50S	CABTEK BS6121 PT-1
E-395	CW 50L	CABTEK BS6121 PT-1
E-396	CW 63S	CABTEK BS6121 PT-1
E-397	CW 63L	CABTEK BS6121 PT-1
E-398	CW 75S	CABTEK BS6121 PT-1
E-399	CW 75L	CABTEK BS6121 PT-1
E-400	CW 90L	CABTEK BS6121 PT-1
E-401	CW 100L	CABTEK BS6121 PT-1

Standard Applied:

BS EN 50262:1999	Cable Glands For Electrical Installations
IEC 62444: 2010	Cable Glands for Electrical Installations

Sampling: 3 samples of largest and smallest; and 1 sample of all other sizes of the same family/series.

BS EN 50262:1999 Clause 5.4 All Samples are were pre-conditioned in an oven at temperature 85°C for 168 hours followed by 24 hours at temperature at (20±5)°C and Relative Humidity (50±10)%

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Continuation Sheet of Test report No: E-389 to E-401

TEST FOR CABLE ANCHORAGE TEST**Test Standard:** BS EN 50262:1999 Clause 9.3 and IEC 62444:2010, Clause 9.4 **Test Date:** 19.02.2015

Elca No.	Applied Weight for Cable Anchorage Test (N)	Acceptance Criteria as per Specification	Observation	Results
E-389	130	Displacement Shall not Exceed 2 mm	No Displacement Observed	Satisfactory
E-390	140	Displacement Shall not Exceed 2 mm	No Displacement Observed	Satisfactory
E-391	250	Displacement Shall not Exceed 2 mm	No Displacement Observed	Satisfactory
E-392	250	Displacement Shall not Exceed 2 mm	No Displacement Observed	Satisfactory
E-393	250	Displacement Shall not Exceed 2 mm	No Displacement Observed	Satisfactory
E-394	350	Displacement Shall not Exceed 2 mm	No Displacement Observed	Satisfactory
E-395	400	Displacement Shall not Exceed 2 mm	No Displacement Observed	Satisfactory
E-396	400	Displacement Shall not Exceed 2 mm	No Displacement Observed	Satisfactory
E-397	400	Displacement Shall not Exceed 2 mm	No Displacement Observed	Satisfactory
E-398	450	Displacement Shall not Exceed 2 mm	No Displacement Observed	Satisfactory
E-399	450	Displacement Shall not Exceed 2 mm	No Displacement Observed	Satisfactory
E-400	450	Displacement Shall not Exceed 2 mm	No Displacement Observed	Satisfactory
E-401	500	Displacement Shall not Exceed 2 mm	No Displacement Observed	Satisfactory

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TEST FOR RESISTANCE TO IMPACT (Category 7)**Test Standard:** BS EN 50262:1999 Clause 9.4 and IEC 62444:2010, Clause 9.5 **Test Date:** 17.02.2015

ELCA No.	Striking Element Weight(Kg)	Drop Height (Meter)	Test Temperature (°C)	Observation	Results
E-389	1	1	-25	No Cracks or damages found on impact Areas.	Satisfactory
E-390	1	1	-25	No Cracks or damages found on impact Areas.	Satisfactory
E-391	1	1	-25	No Cracks or damages found on impact Areas.	Satisfactory
E-392	1	1	-25	No Cracks or damages found on impact Areas.	Satisfactory
E-393	1	1	-25	No Cracks or damages found on impact Areas.	Satisfactory
E-394	1	1	-25	No Cracks or damages found on impact Areas.	Satisfactory
E-395	1	1	-25	No Cracks or damages found on impact Areas.	Satisfactory
E-396	1	1	-25	No Cracks or damages found on impact Areas.	Satisfactory
E-397	1	1	-25	No Cracks or damages found on impact Areas.	Satisfactory
E-398	1	1	-25	No Cracks or damages found on impact Areas.	Satisfactory
E-399	1	1	-25	No Cracks or damages found on impact Areas.	Satisfactory
E-400	1	1	-25	No Cracks or damages found on impact Areas.	Satisfactory
E-401	1	1	-25	No Cracks or damages found on impact Areas.	Satisfactory

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TEST FOR RESISTANCE TO EXCESS TORQUE**Test Standard:** BS EN 50262:1999 Clause 9.5**Test Date:** 11.02.2015

ELCA No.	Sample Description (Cable Gland)	Torque Applied (Nm)		Remarks
		Base Torque	1.5 x Base Torque	
E-389	CW 20S	26	40	No Defects Observed. Acceptable
E-390	CW 20L	26	40	No Defects Observed. Acceptable
E-391	CW 25L	40	60	No Defects Observed. Acceptable
E-392	CW 32L	46	70	No Defects Observed. Acceptable
E-393	CW 40L	60	90	No Defects Observed. Acceptable
E-394	CW 50S	73	110	No Defects Observed. Acceptable
E-395	CW 50L	73	110	No Defects Observed. Acceptable
E-396	CW 63S	86	130	No Defects Observed. Acceptable
E-397	CW 63L	86	130	No Defects Observed. Acceptable
E-398	CW 75S	93	140	No Defects Observed. Acceptable
E-399	CW 75L	93	140	No Defects Observed. Acceptable
E-400	CW 90L	103	155	No Defects Observed. Acceptable
E-401	CW 100L	110	160	No Defects Observed. Acceptable

TEST FOR INGRESS PROTECTION (IP66) TEST**Test Standard:** IEC 60529:2013**Test Date:** 17.02.2015

Sr. No	Name of the Test	IEC 60529 Standard Reference	Standard Specification	Equipment Used
1.	Protection against Solid Foreign object Indicated by the first Characteristic numerals(Dust Test) IP 6X	Cl. 13.4 Category 1	No talcum powder shall be allowed to deposit inside the enclosure at end of the test.	Dust Test Chamber for IP 6X
2.	Protection against ingress of Water Indicated by the second Characteristic numerals(Water Jet) Nozzle) IP X6	Cl 14.2.6	No water shall be allowed inside the enclosure at the end of the test.	Water Jet Nozzle 12.5mm diameter for IP X6

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The IP test procedure is based on IEC 60529 (Degree of Protection Provided by enclosure IP Code) Cable Glands with specified mandrels were fitted into enclosures for test purpose. After completion of each test, sample was visually inspected.

Sr. no	ELCA ID/ Sample Size	Name of Test	Observations
1.	E-389 CW-20S	IP6X	No ingress of dust observed inside the enclosure
		IPX6	No ingress of water observed inside the enclosure
2.	E-390 CW-20L	IP6X	No ingress of dust observed inside the enclosure
		IPX6	No ingress of water observed inside the enclosure
3.	E-391 CW-25L	IP6X	No ingress of dust observed inside the enclosure
		IPX6	No ingress of water observed inside the enclosure
4.	E-392 CW-32L	IP6X	No ingress of dust observed inside the enclosure
		IPX6	No ingress of water observed inside the enclosure
5.	E-393 CW-40L	IP6X	No ingress of dust observed inside the enclosure
		IPX6	No ingress of water observed inside the enclosure
6.	E-394 CW-50S	IP6X	No ingress of dust observed inside the enclosure
		IPX6	No ingress of water observed inside the enclosure
7.	E-395 CW-50L	IP6X	No ingress of dust observed inside the enclosure
		IPX6	No ingress of water observed inside the enclosure
8.	E-396 CW-63S	IP6X	No ingress of dust observed inside the enclosure
		IPX6	No ingress of water observed inside the enclosure
9.	E-397 CW-63L	IP6X	No ingress of dust observed inside the enclosure
		IPX6	No ingress of water observed inside the enclosure
10.	E-398 CW-75S	IP6X	No ingress of dust observed inside the enclosure
		IPX6	No ingress of water observed inside the enclosure
11.	E-399 CW-75L	IP6X	No ingress of dust observed inside the enclosure
		IPX6	No ingress of water observed inside the enclosure
12.	E-400 CW-90L	IP6X	No ingress of dust observed inside the enclosure
		IPX6	No ingress of water observed inside the enclosure
13.	E-401 CW-100L	IP6X	No ingress of dust observed inside the enclosure
		IPX6	No ingress of water observed inside the enclosure
Results: The Cable Glands satisfy the requirements of IP66.			

Checked by:  END OF REPORT

for ELCA LABORATORIES


 (Authorized Signatory)
 N. Kalyan / Kartik Iyer
 Proprietor / C.E.O